Kelvion Plate Heat Exchanger: NT50T CDS-16

Thermal data for 1 unit(s) in parallel and 1 unit(s) in series

	hot side	cold side	
Media:	Water	Water	
Media group acc. PED 2014/68/EU:	Group 2 - others	Group 2 - others	
Heat exchanged:	600,00		kW
Mass flow:	7309	25806	kg/h
Volume flow:	7,66	26,25	m³/h / m³/h
Temperature inlet:	140,00	50,00	°C
Temperature outlet:	70,00	70,00	°C
Pressure drop:	0,02	0,23	bar
Working pressure inlet:	12,00	5,00	bara
Filling volume:	0,00442	0,00463	m³

Product properties

Density:	954,70	983,16	kg/m³
Heat capacity:	4221,70	4185,10	J/kgK
Thermal conductivity:	0,67894	0,65096	W/mK
Dyn. viscosity inlet:	0,1966	0,5465	cP
Dyn. viscosity outlet:	0,4035	0,4035	cP

Unit Data

Plate Type:	NT50T H			
Heat transfer area (total / per unit):	2,72	2,72		m²
Number of plates (total / per unit):	42	42		
Plate thickness:	0.5			mm
LMTD:	39,91			K
Surface margin:	16,24			%
Plate material:	AISI316L			
Gasket material / Gasket type:	EPDM	glueless		
Internal flow (passes x channels):	1 x 20	1 x 21		
No. of frames (par. / ser. / total):	1	1	1	
Material pressure plates / surface:	S355J2+N	painted	RAL5002	

CIP:

The connection types and positions are defined in the attached dimension sheet.

Design temperature:	**Min.:**	0,00 / 0,00	**Max.:**	150,00 / 150,00	°C
Design pressure:	**Min.:**	0,00 / 0,00	**Max.:**	16,00 / 16,00	bara

Test pressure: 20,80 / 20,80 bara **Design code:** PED 2014/68/EU AD-2000 Checkfactor 1.3

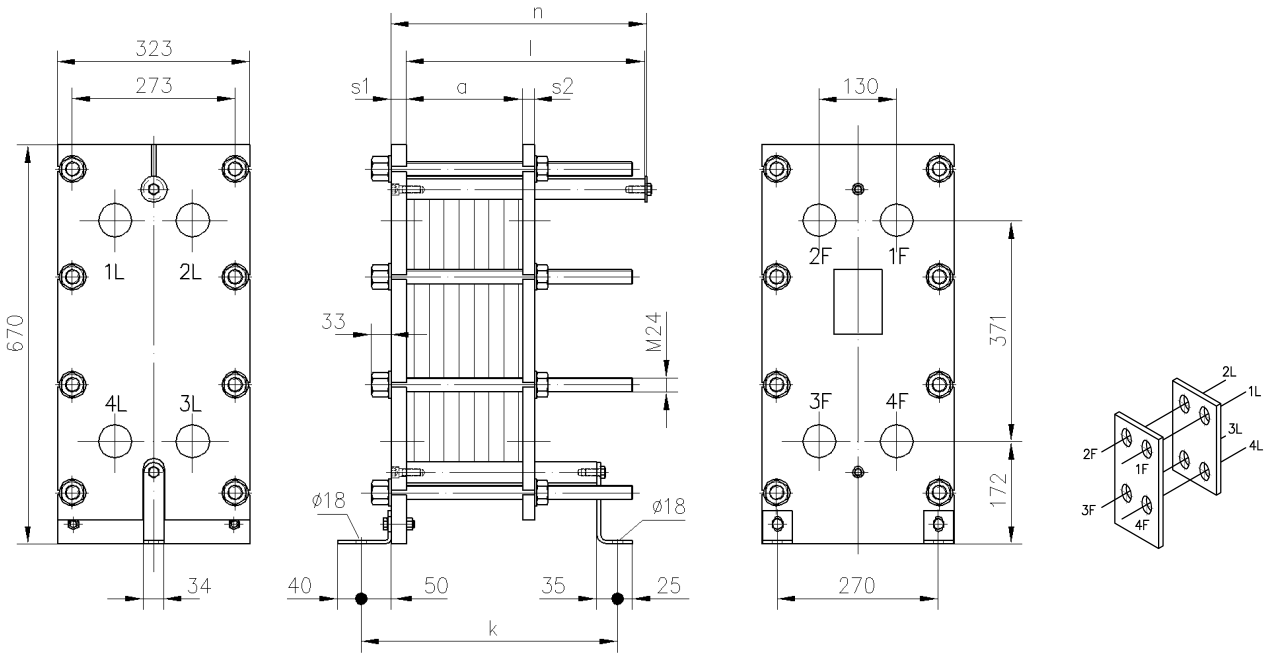
PED category: Category I, Modul A, CE-Sign no notified body

Conformity assessment diagram: Medium innocuous and steam pressure at Tdesign› 0.5 barg

Type: NT50T CDS-16

Dimensions of drawing in [mm]

0050-117-Model.tif

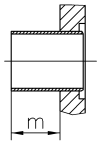


Achtung! Bei GFT, MFT, OFT kann die Anordnung der Schraubenlöcher abweichend von der DIN 2501 T1 sein.

Attention! If rubber inserts / metal insert / industrial standard are used, the position of the drilling template can be different from DIN 2501 T1

n:	429 mm	s_1:	25 mm	a-max frame:	219 mm	empty weight:	118 kg
k:	430 mm	s_2:	25,00 mm	a-max actual:	136 mm	max. total weight:	126 kg
l:	400 mm					max. bolt length:	400 mm

Pos	Size	Type	Media	Side/Flow	m
1F	DN50	outside thread DIN 2999 AISI316Ti	Water	hot - in	43 mm
2F	DN50	outside thread DIN 2999 AISI316Ti	Water	cold - out	43 mm
3F	DN50	outside thread DIN 2999 AISI316Ti	Water	cold - in	43 mm
4F	DN50	outside thread DIN 2999 AISI316Ti	Water	hot - out	43 mm



outside thread			
DIN2999			
AISI316Ti			
1F;2F;3F;4F			

Technical Revisions reserved. Layer thickness in case of painted frames acc. DIN EN ISO 12944-5, frame plate surface quality acc. DIN EN 10029. The design details are valid for PHE manufactured by Kelvion PHE GmbH/Sarstedt.

Kelvion Plate Heat Exchanger: NT100M CDL-10

Thermal data for 1 unit(s) in parallel and 1 unit(s) in series

	hot side	cold side	
Media:	Water	Ethylene glycol 35,00 %	
Media group acc. PED 2014/68/EU:	Group 2 - others	Group 2 - others	
Heat exchanged:	386,00		kW
Mass flow:	66229	77079	kg/h
Volume flow:	66,25	72,55	m³/h / m³/h
Temperature inlet:	12,00	5,00	°C
Temperature outlet:	7,00	10,00	°C
Pressure drop:	0,19	0,34	bar
Working pressure inlet:	12,00	5,00	bara
Filling volume:	0,05877	0,05877	m³

Product properties

Density:	999,69	1062,42	kg/m³
Heat capacity:	4196,35	3605,65	J/kgK
Thermal conductivity:	0,57766	0,45608	W/mK
Dyn. viscosity inlet:	1,2341	4,8940	cP
Dyn. viscosity outlet:	1,4272	4,0678	cP

Unit Data

Plate Type:	NT100M HV			
Heat transfer area (total / per unit):	41,32	41,32		m²
Number of plates (total / per unit):	89	89		
Plate thickness:	0.4			mm
LMTD:	2,00			K
Surface margin:	2,18			%
Plate material:	AISI304			
Gasket material / Gasket type:	EPDM	glueless		
Internal flow (passes x channels):	1 x 44	1 x 44		
No. of frames (par. / ser. / total):	1	1	1	
Material pressure plates / surface:	S355J2+N	painted	RAL5002	

CIP:

The connection types and positions are defined in the attached dimension sheet.

Design temperature:	**Min.:**	0,00 / 0,00	**Max.:**	100,00 / 100,00	°C
Design pressure:	**Min.:**	0,00 / 0,00	**Max.:**	10,00 / 10,00	bara

Test pressure: 13,00 / 13,00 bara **Design code:** PED 2014/68/EU AD-2000 Checkfactor 1.3

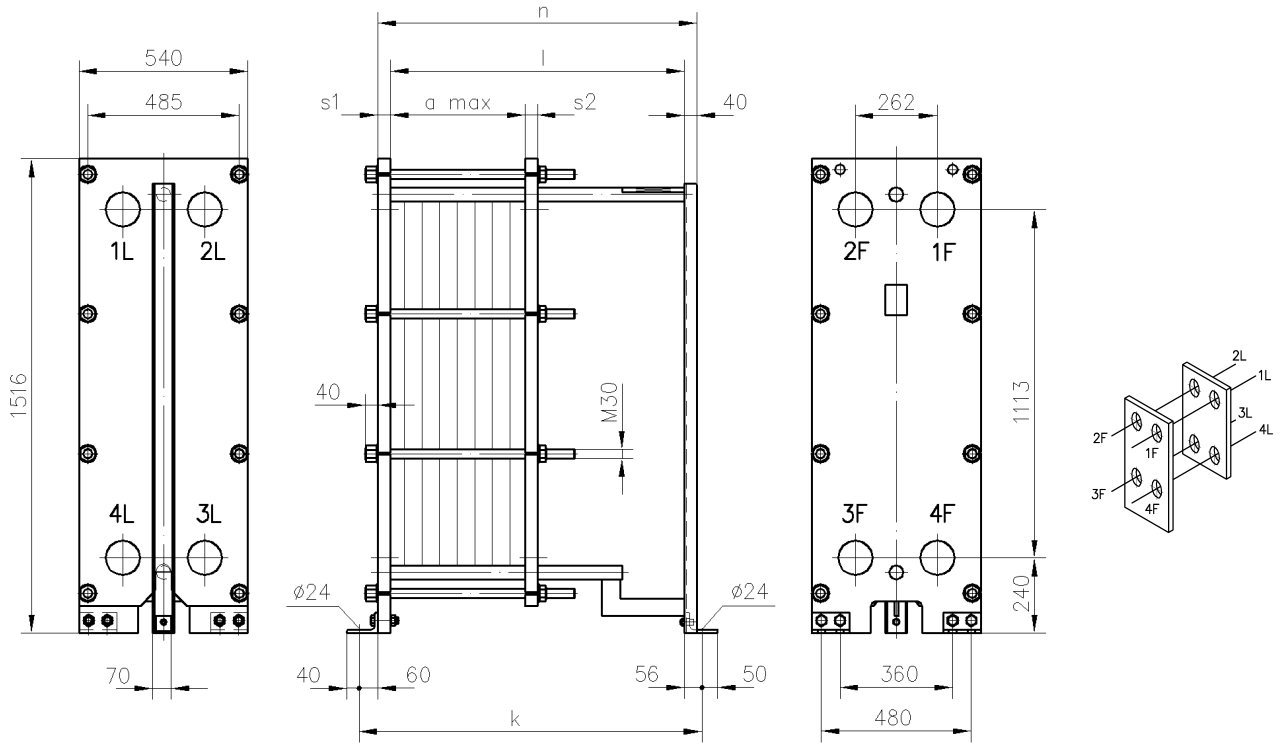
PED category: art. 4 ch. 3, , Normal

Conformity assessment diagram: Medium innocuous and steam pressure at Tdesign<= 0.5 barg

Type: NT100M CDL-10

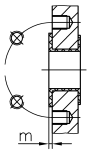
Dimensions of drawing in [mm]

0100-105-Model.tif



n:	845 mm	s_1:	40 mm	a-max frame:	404 mm	empty weight:	707 kg
k:	921 mm	s_2:	40,00 mm	a-max actual:	298 mm	max. total weight:	827 kg
l:	765 mm	h:	1516 mm			max. bolt length:	750 mm

Pos	Size	Type	Media	Side/Flow	m
1F	DN100	Rubber insert EN1092-1-PN16 EPDM	Water	hot - in	4 mm
2F	DN100	Rubber insert EN1092-1-PN16 EPDM	Ethylene glycol 35,00 %	cold - out	4 mm
3F	DN100	Rubber insert EN1092-1-PN16 EPDM	Ethylene glycol 35,00 %	cold - in	4 mm
4F	DN100	Rubber insert EN1092-1-PN16 EPDM	Water	hot - out	4 mm



Rubber insert			
EN1092-1-PN16			
EPDM			
PN 16			
1F;2F;3F;4F			

Technical Revisions reserved. Layer thickness in case of painted frames acc. DIN EN ISO 12944-5, frame plate surface quality acc. DIN EN 10029. The design details are valid for PHE manufactured by Kelvion PHE GmbH/Sarstedt.